ABSTRACT OF THE DISCLOSURE

In a method for adaptive triggering of respiratory phases in a breathing device, and a breathing device operating according to the method, first respiration indicator signal is determined based on at least one of the parameters flow and pressure, the respiration indicator signal is compared with a trigger requirement and a trigger signal is generated when the respiration indicator signal fulfils the trigger requirement. In order to shorten response times to respiration changes without losing stability, an excitable cell signal related to respiration is measured, and a second respiration indicator signal is determined based on the measured excitable cell signal, and the trigger requirement is adapted in relation to the second respiration indicator signal.